

Course Syllabus
BISC 331 Comparative Anatomy of the Vertebrates

Instructor: Dr. Christopher Leary
Semester: Spring 2020
Lecture: Shoemaker Hall Room 303
Lecture times: Tues, Thurs 1:00-2:15

Office Location: Shoemaker Room 416
Office Hours: 10:00-1:00, Mon & Wed
E-mail: cjeary@olemiss.edu
Phone: 915-1087

Laboratory Instructors: Tyler Casada
Lab Location: Shoemaker Hall Room 510

Lab times: Section 1: Wed 11-1:50
Section 4: Tues 2:30-5:20

Overview: Why do vertebrates differ so much in their morphology? For instance, think about the differences in the anatomy of birds and turtles. How and why did such extreme differences in anatomy arise? To address these types of questions, we will examine vertebrate form and function in an evolutionary context. In doing so, we will consider a wide range of topics including systematics, histology, embryology, physiology, ecology and behavior. Upon completion of this course, students should be able to integrate various principles, concepts, and themes in order to understand morphological variation across vertebrate taxa.

Text: “Vertebrates: Comparative Anatomy, Function, Evolution” 5th edition (or more recent editions). McGraw Hill Publisher. Author: K.V. Kardong.

Laboratory manual and materials: “Comparative Vertebrate Anatomy: A Laboratory Dissection Guide”, 6th edition (or more recent editions). McGraw Hill Publisher. Authors: K.V. Kardong and E.J. Zalisko.

**Purchase a dissection kit.*

Attendance: You are responsible for all information and material provided during class. Attendance is expected and may be recorded each day of class. *To comply with attendance verification requirements, a report of your attendance will be made during the first two weeks of class.*

Exam and quiz make-up policy: Students can make-up missed exams or quizzes only under the following circumstances: 1) illness with physician documentation, 2) family emergency with contact person provided, 3) University-sponsored function with written documentation from sponsoring department. I must be contacted either before the exam/quiz or within 24 hours after the exam/quiz is given to arrange a time to make-up the exam.

Cell Phones: The use of cell phones during class will not be tolerated. Please turn your cell phone OFF before entering the classroom.

Academic integrity: In cases involving dishonesty or misconduct, procedures outlined by the University Academic Discipline Committee will be followed.

LECTURE & LAB SCHEDULE

<u>Date</u>	<u>Text Chapter</u>	<u>Lecture Topic</u>	<u>Lab</u>
Week 1 (Jan 21-24)	1	Introduction: a brief history, general morphological concepts, phylogeny and geological time	Vertebrae, ribs
Week 2 (Jan 27-31)	2, 3	Chordate and vertebrate phylogeny and characteristics	Skull
Week 3 (Feb 3-7)	4, 5	Design: size, shape, biomechanics, biophysics and life history	Girdles, limbs
Week 4 (Feb 10-14)	6	Integument LECTURE EXAM I	LAB EXAM I
Week 5 (Feb 17-21)	7	The skull	Muscle
Week 6 (Feb 24-28)	7	The skull	Muscle
Week 7 (March 2-6)	8	The axial skeleton	Muscle
Week 8 (March 9-13)		SPRING BREAK!	
Week 9 (March 16-20)	9	The appendicular skeleton	LAB EXAM II
Week 10 (March 23-27)	10	The muscular system LECTURE EXAM II	Circulation/ Respiration
Week 11 (March 30-Apr 3)	11	The respiratory system	Circulation/ Respiration
Week 12 (Apr 6-10)	12	The circulatory/ respiratory systems	Circulation/ Respiration
Week 13 (Apr 13-17)	12	The circulatory/system respiratory systems	Digestive system
Week 14 (Apr 20-24)	13	The digestive system	Urogenital system
Week 15 (Apr 27-May 1)	14	The urogenital system	LAB EXAM III
Week 16 (May 4-8)		EXAM III: Final Exam	

GRADE DISTRIBUTION

LECTURE

3 Exams (100 points each).....300 points
5 Quizzes (10 points each).....50 points

Total points from lecture: **350**

LABORATORY

3 Lab exams (50 points each).....150 points
5 Lab quizzes (10 points).....50 points

Total points from lab: **200**

Total course points = 550

Grading Scale: The “plus/minus” grade system is not used in this course. Final grades are calculated based on the percentage of the total points earned.

Final grades: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = 59% or less